

A NEW SPECIES OF ISOETES FROM NEW GUINEA*

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Isoëtes habbemensis sp. nov.

Rhizoma bilobatum(?), circa 3.5×1.5 cm., 1 cm. altum, appresse semi-globosum, sursum foliorum fasciculum gerens, subtus radicibus nigro-brunneis circa 2 mm. in diametro dense indutum. Folia leviter curvata, usque ad 14 cm. longa, medio circa 3 cm. in diametro, in sectione semicircularia, dorso rotundata, supra subplanata, nervo subprominente et marginibus leviter alatis; foliorum parte superiore viride, lacunis circa 4 mm. longis, apicibus fallentibus; parte inferiore foliorum circa 3 cm. longa, pallide rufo-fuscescente, basin versus late alata usque ad 1 cm. lata. Stomata nulla. Ligula deltoidea. Velum nullum. Sporangia obovato-oblonga, circa 1 cm. longa, 4 mm. lata, multilocularia. Megasporeae circa 575μ in diametro, sublaeves, valde tricarinatae, siccitate pallide griseo-albidae. Microsporeae dense echinulatae, circa 43μ in diametro, siccitate fuscescentes.

NETHERLANDS NEW GUINEA: Lake Habbema, alt. 3225 m., *Brass 9440* (TYPE in herb. Brit. Mus.), *9441* (form with short recurved leaves), very abundant in marginal shallows; 4 km. N. E. of Wilhelmina-top, alt. 3660 m., *Brass & Myer-Drees 9974* (form with shorter leaves), common in stony shallows of a lake. The cited specimens are deposited in the herbarium of the British Museum, and duplicates are in the Gray Herbarium.

This species is separated from *I. neoguineensis* Bak., the only other species recorded from New Guinea, by its nearly smooth megaspores, which are very slightly rugose on the back. These megaspores are greyish white when dry and light brown when wet. *Isoëtes neoguineensis* was first collected by A. Giulianetti on Mount Scratchley at 10000–13000 ft., and recently by Brass (no. 4366) in the shallows of an alpine lake at 3680 m. on Mount Albert Edward. The megaspores were incorrectly described as "laeves" by Baker; they are strongly tuberculate. *Isoëtes philippinensis* Merrill & Perry, from a stream at 400–500 m. near Momungan, in Lanao Province of Mindanao, is separated by the reticulate sculpturing of its megaspores. The megaspores of *I. sinensis* Palmer, which was found in a pond near the Ming tomb in Spirit Valley (Nanking), are conspicuously crested. The other Chinese species, *I. hypsophila* Hand.-Maz., from moorland pools at 3600 m. in Yunnan, has smooth mega- and microspores, while the Indian *I. coromandeliana* L. f. has tuberculate megaspores.

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*Botanical Results of the Richard Archbold Expeditions.